

- 14 -

CLAIMS

1. Metal screen material having a flat side, comprising a network of dykes which are connected to one another by crossing points, which dykes delimit openings, the thickness of the crossing points (36) not being equal to the thickness of the dykes (34).
2. Screen material according to claim 1, characterized in that the thickness of the crossing points (36) is greater than the thickness of the dykes (34).
3. Screen material according to claim 1 or 2, characterized in that the difference between the thickness of the crossing points (36) and the thickness of the dykes (34) is in the range from 20-250 micrometres.
4. Screen material according to claim 3, characterized in that the difference is in the range from 100-200 micrometres.
5. Screen material according to one of the preceding claims, characterized in that the crossing points (36) have an apex angle (38) of less than 120°.
6. Screen material according to one of the preceding claims, characterized in that the screen material is in the form of a seamless cylinder.
7. Screen material according to one of the preceding claims, characterized in that the screen material is electroformed.
8. Method for manufacturing metal screen material having a flat side, comprising a network of dykes which are connected to one another by crossing points, which dykes delimit openings, in particular according to one of the preceding claims, comprising at least one or more growth steps for electrolytically thickening a flat screen skeleton in an electroplating bath under controlled conditions, in such a manner that in at least one growth step the growth rate of the crossing points is not

- 15 -

equal to the growth rate of the dykes, so that in the screen material the thickness of the crossing points is not equal to the thickness of the dykes.

- 5 9. Method according to claim 8, characterized in that the controlled conditions comprise a forced flow of the bath liquid through the screen skeleton.
- 10 10. Method according to claim 9, characterized in that the flow rate of the bath liquid is in the range from 200 l/dm² to 600 l/dm².
- 15 11. Method according to one of the preceding claims 8-10, characterized in that the bath liquid comprises a brightener in a concentration in the range from 200-500 g/l.
- 20 12. Method according to claim 11, characterized in that the bath liquid comprises a brightener having properties of the first and second classes.
- 25 13. Method according to one of the preceding claims 8-12, characterized in that the current density is in the range from 5 to 40 A/dm².
- 30 14. Use of the screen material according to one of the preceding claims 1-7 or the screen material obtained using the method according to one of the preceding claims 8-13 for the perforation of film material.
- 35 15. Assembly of a support screen and a perforating screen, in which the support screen comprises screen material according to one of the preceding claims 1-7 or the screen material obtained using the method according to one of the preceding claims 8-13.
16. Method for manufacturing an assembly of a tubular support screen and a tubular perforating screen, in particular cylindrical seamless screens, at least comprising a step of shrinking the perforating screen onto the support screen.

- 16 -

17. Method according to claim 16, characterized in that a cylindrical support screen is subjected to a heat treatment at elevated temperature, so that a support screen with a defined outer diameter (OD) is obtained, and in that a cylindrical
5 perforating screen with an inner diameter (ID) which is slightly greater than the outer diameter (OD) of the support screen is fitted over the support screen, and the unit comprising support screen and perforating screen is subjected to a heat treatment at a temperature which is lower than the temperature used for
10 the heat treatment of the support screen, for a sufficient time to shrink the perforating screen onto the support screen.

18. Method for manufacturing an assembly of a tubular support screen and a tubular perforating screen, in particular
15 cylindrical seamless screens, at least comprising a step of arranging a deformed support screen in the perforating screen and restoring the original shape of the support screen.

19. Method according to claim 18, characterized in that to
20 restore the original shape of the support screen, an inflatable container is placed into the support screen and is then pressurized.

20. Method according to claim 18 or 19, characterized in that
25 the inner diameter of the perforating screen is slightly smaller than the outer diameter of the support screen.

21. Method for manufacturing an assembly of a tubular support screen and a tubular perforating screen, in particular
30 cylindrical seamless screens, at least comprising a step of pushing the perforating screen over the support screen with the aid of a pressurized fluid.

22. Method according to one of the preceding claims 16-21,
35 characterized in that a support screen according to one of claims 1-7 or obtained using the method according to one of claims 8-13 is used.

23. Use of the assembly according to claim 15 or obtained using

- 17 -

a method according to one of claims 16-22 for perforating film material.